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Memo CP-D/606

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To: Distribution
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Subject: Independent variables in reaction combination

The coding rule for independent variables in reaction combination is rather unclear. The following rules are proposed to be added to LEXFOR **Independent Variables**.

Independent variables in reaction combination

1) Each term of a reaction combination may be function of the different variables.

   The terms must have the same value for the independent variables they have in common,

   One term may be a function of independent variable not shared by the other terms in the ratio. The variables of a ratio expressed by the separator "/" are coded using extensions without the extensions -NM and -DN

   Examples:

   (1)
   ```
   ((5-B-10(N,A)3-LI-7,PAR,SIG,,MXW)*
   (5-B-10(N,A)3-LI-7,,SIG,,MXW))
   ```
   Only the first term refers to the secondary energy as an independent variable, which is coded under, e.g., E-LVL.

   (2)
   ```
   ((5-B-10(N,A)3-LI-7,PAR,SIG,,MXW)/
   (5-B-10(N,A)3-LI-7,,SIG,,MXW))
   ```
   Only the numerator refers to the secondary energy as an independent variable, which is coded under, e.g., E-LVL.

2) If the terms of a reaction ratio have different values of the same independent variable they must be coded using the separator "//" and headings with the extensions -NM and -DN are used for the independent variable.

   Example:

   ```
   ((5-B-10(N,A)3-LI-7,PAR,SIG,,MXW)//
   (5-B-10(N,A)3-LI-7,PAR,SIG,,MXW))
   ```
   Both numerator and denominator refer to the secondary energy as an independent variable, which are coded under, e.g., E-LVL-NM and E-LVL-DN.

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